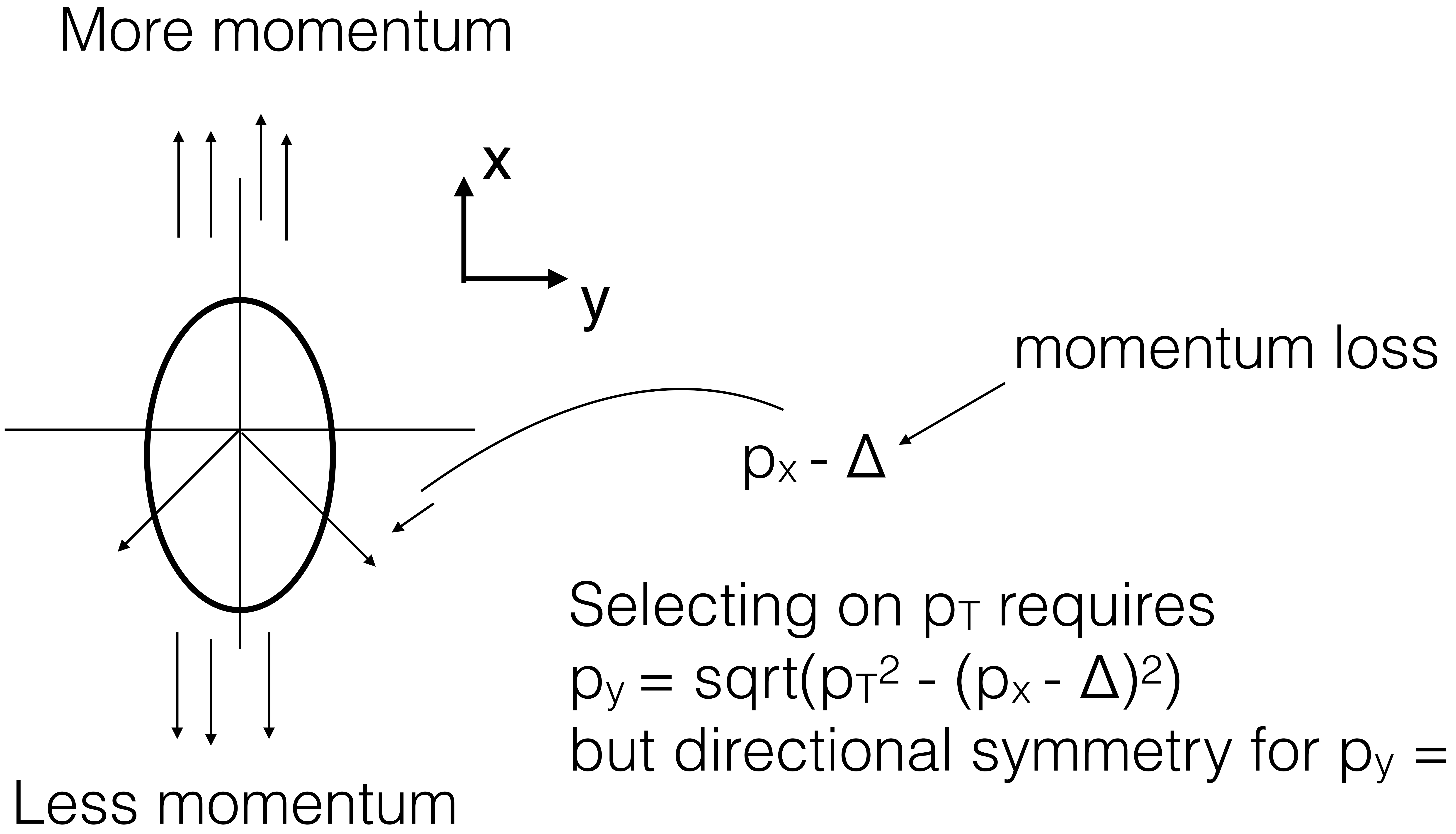
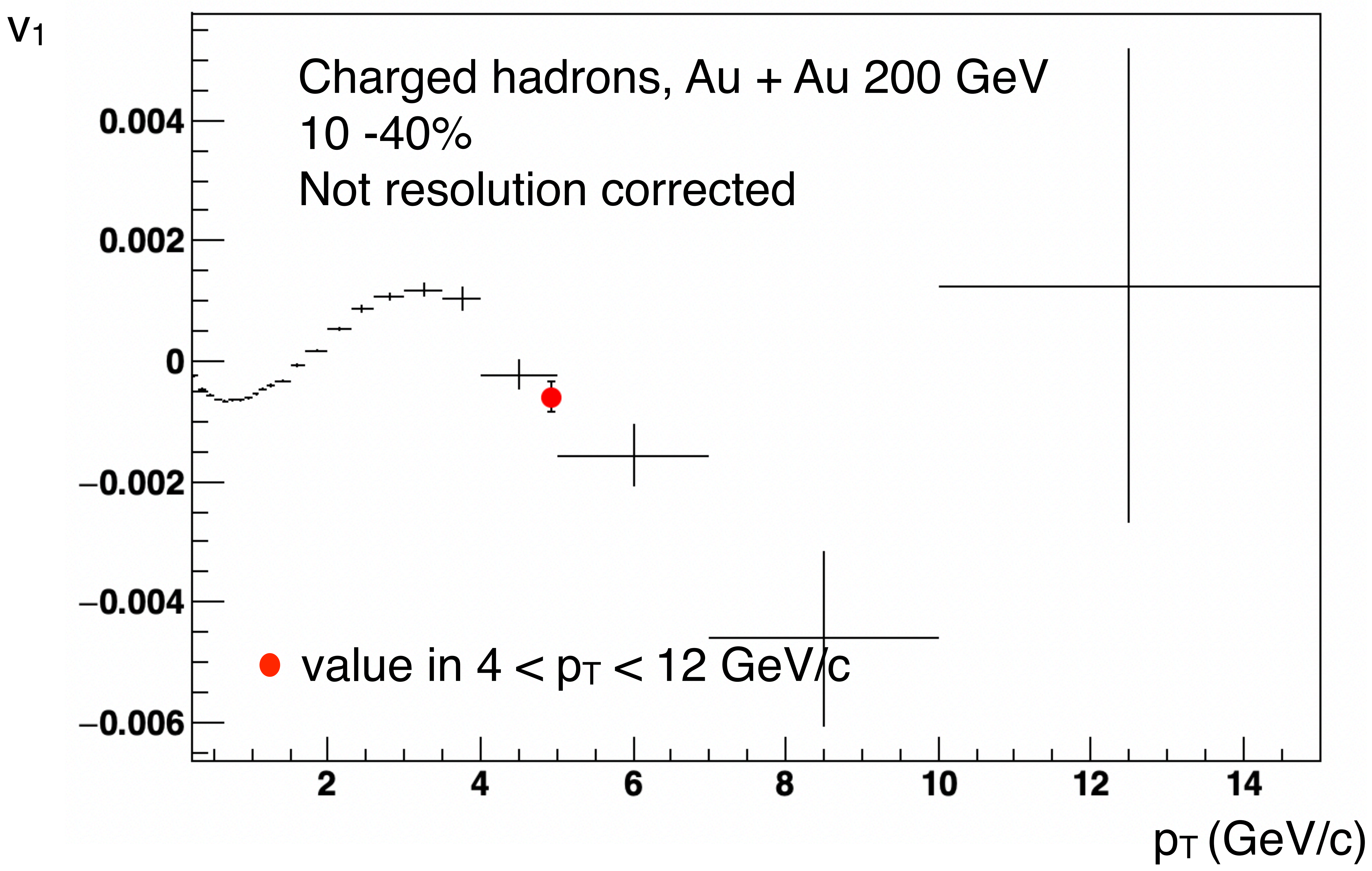


Selecting on p_T requires
$p_y = \mathrm{sqrt}(p_T^2 - (p_x - \Delta)^2)$
but directional symmetry for p_y ==> $\langle p_y \rangle = 0$

True for all selections except for p_y == 0, but this is a very small fraction of all jets in the sample



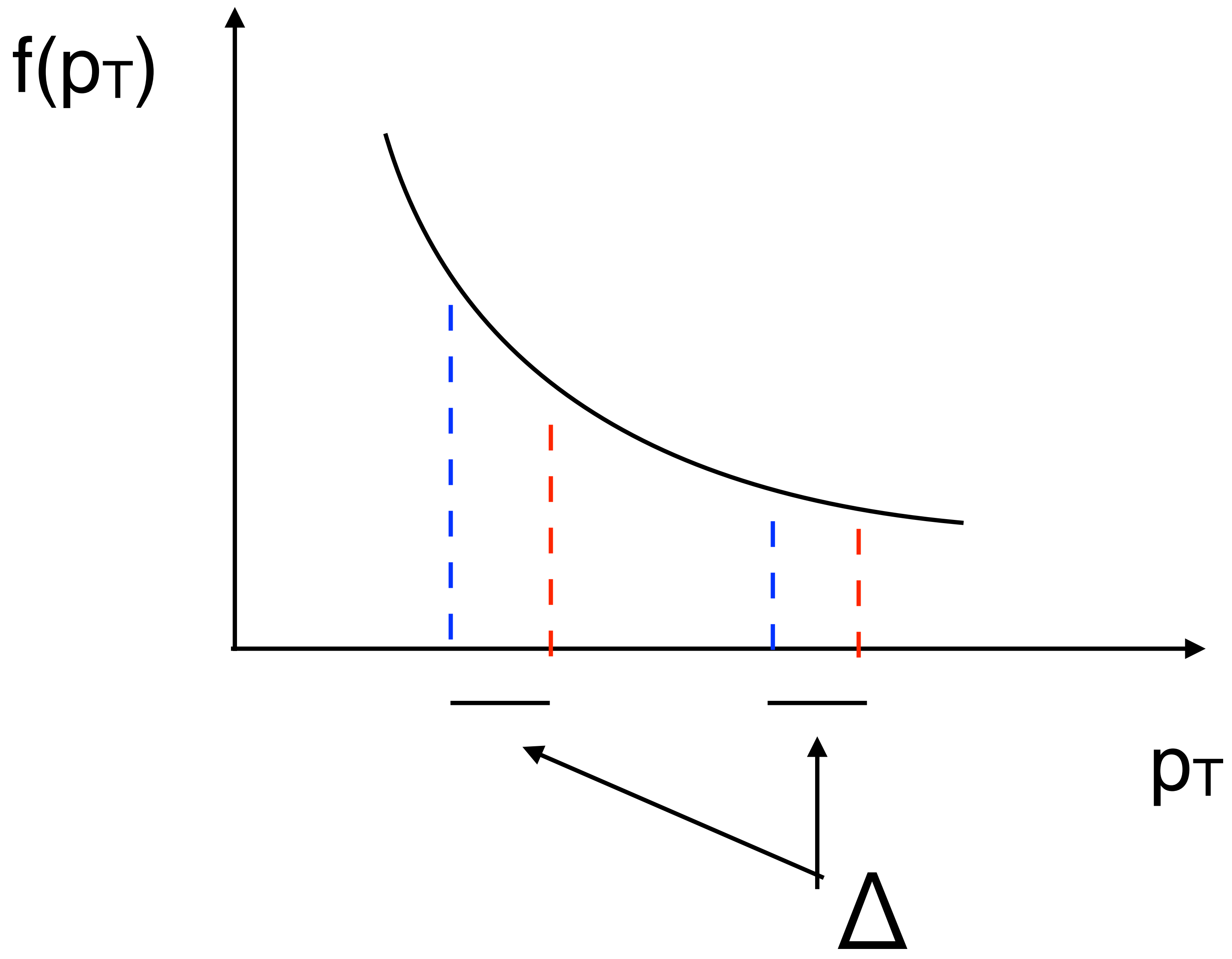
Value measured in a large p_T bin consistent with weighted average of differential measurements

v_1 measured is a well defined physical quantity, $\langle p_x \rangle / p_T$

If you look at only the sample with $p_y = 0$ and define a v_1 from the number asymmetry from p_T shift,

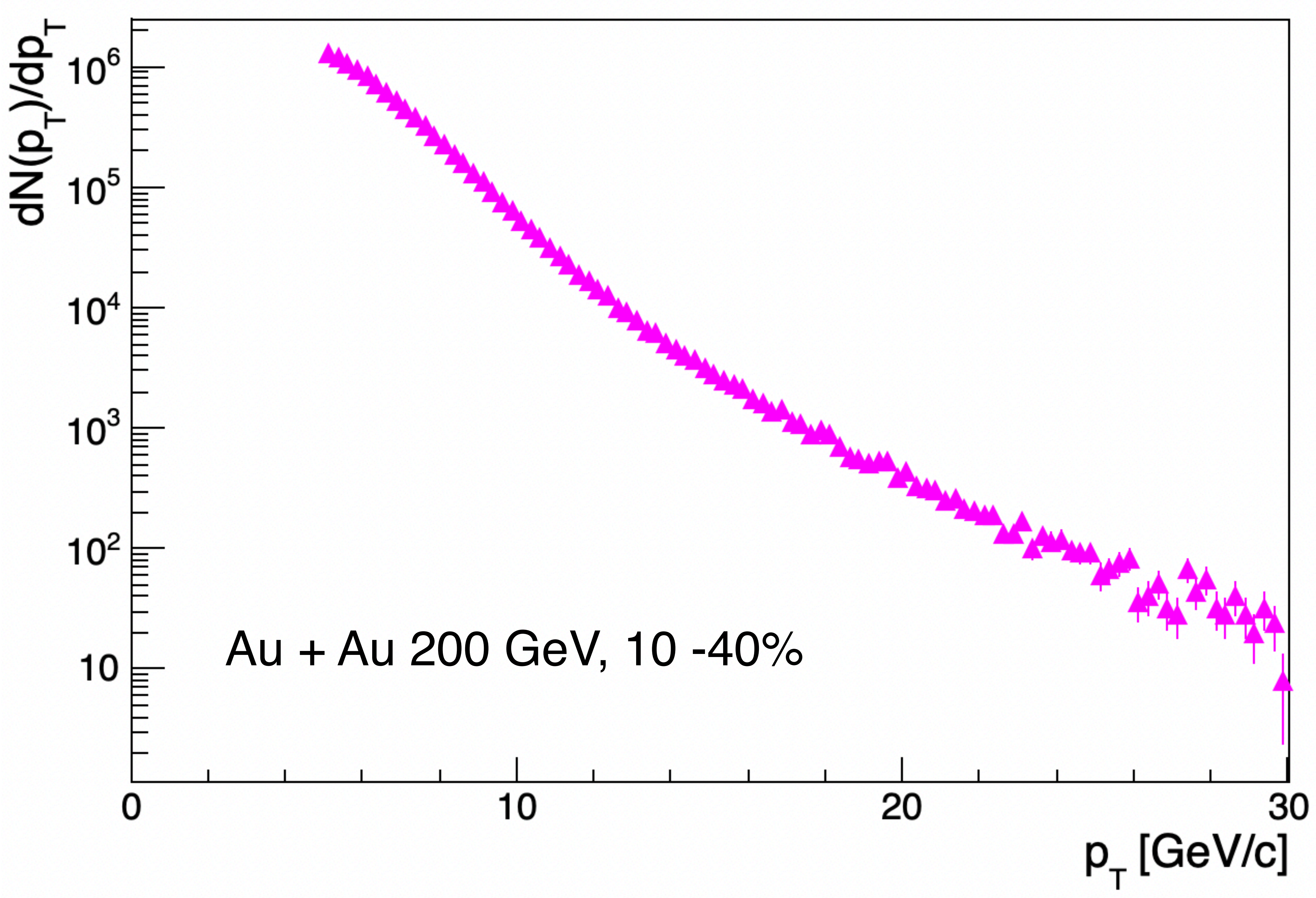
$$v_1' = \frac{\int_{p_{T,1}}^{p_{T,2}} f(p_T)dp_T - \int_{p_{T,1+\Delta}}^{p_{T,2+\Delta}} f(p_T)dp_T}{2\int_{p_{T,1}}^{p_{T,2}} f(p_T)dp_T}$$

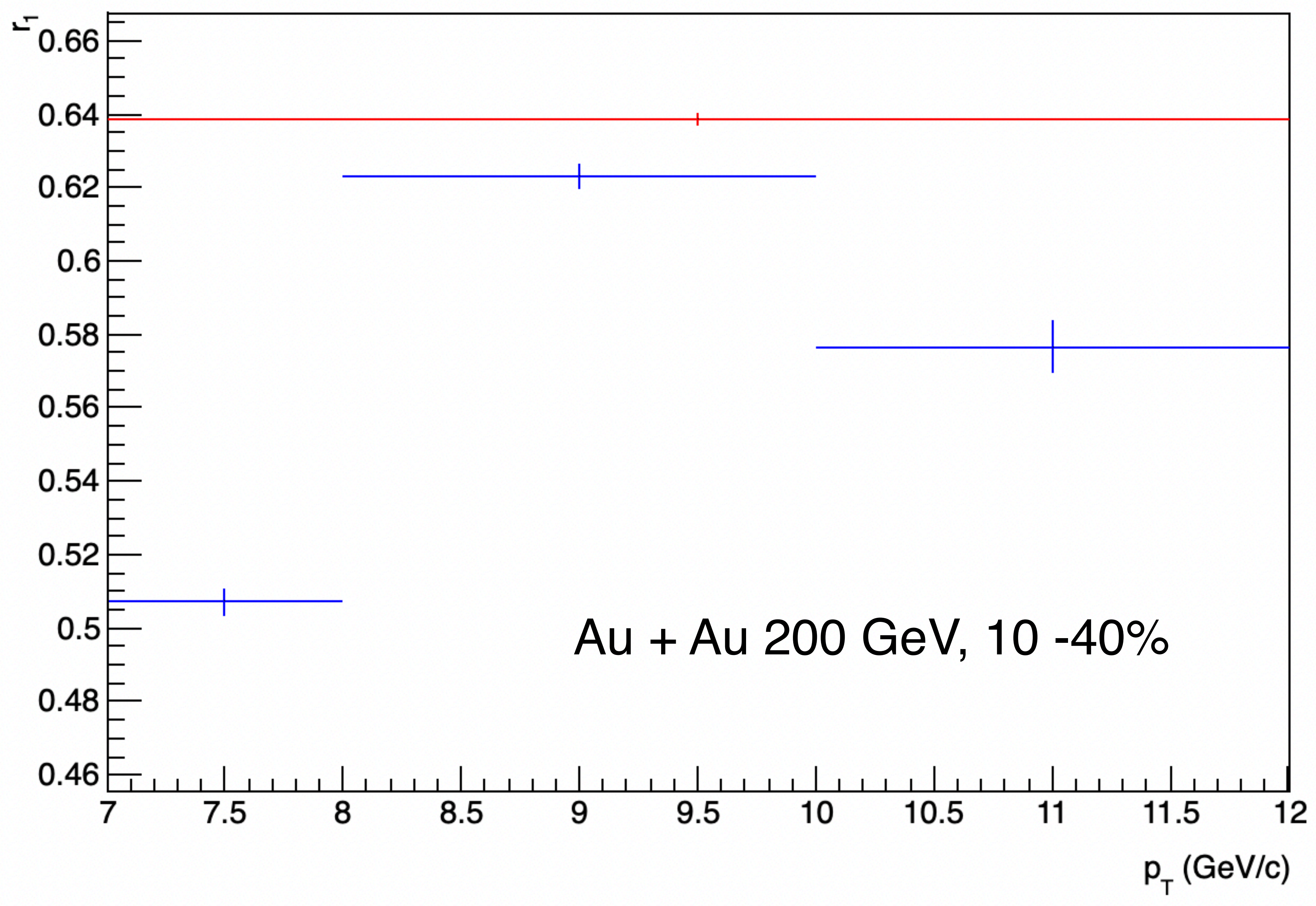
$$= \frac{\Delta\left(f(p_{T,1}) - f(p_{T,2})\right)}{2\int_{p_{T,1}}^{p_{T,2}} f(p_T)dp_T}$$



where $f(p_T) = dN(p_T)/dp_T$ and Δ is momentum shift

Assuming Δ doesn't vary strongly with p_T
calculate $r_1 = v_1'/\Delta$ from the spectra





Not a well defined quantity, depends on the bin width and slope in the bin looked at

Value calculated in integrated p_T bin is not the average of the differential measurements, not a physical quantity

This is not what we measure. What we measure is the physical v_1